

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.- 106. (Cancelled)

107. (Currently Amended) A method of transmitting a digital signal from transmitters of at least two base stations to a receiver in a radio system, the method comprising:

the transmitter transmitting the signal via at least two different transmit antenna paths, the transmit antenna paths being connected to at least two different base stations;

wherein [[the]] transmit power of the signals to be transmitted via different transmit antenna paths are weighted with respect to one another in the transmitter using changeable weighting coefficients determined for each transmit antenna path;

wherein the transmitter receives from the receiver weighting coefficient data formed on the basis of measurements performed by the receiver on the received signals, and the transmitter forms weighting coefficients using the weighting coefficient data;

wherein the weighting coefficient data comprises differential information indicating how the ratios of the weighting coefficients for the transmit antenna paths are changed differentially.

108. (Currently Amended) A radio system for transmitting a digital signal, comprising:

transmitters of at least two different base stations for transmitting a signal;

at least two transmit antenna paths that can be connected to the transmitters of at least two different base stations;

a receiver for receiving the signal;

wherein the transmitter comprises

changing means for changing the weighting coefficients determined for each transmit antenna path with respect to one another,

receiving means for receiving from the receiver weighting coefficient data formed on the basis of measurements performed by the receiver on the received signals, and

weighting means for weighting [[the]] transmit power of the signals to be transmitted via different transmit antenna paths using weighting coefficients that can be changed with respect to one another, and the weighting means forms weighting coefficients using the

weighting coefficient data, wherein the weighting coefficient data comprises differential information indicating how the ratios of the weighting coefficients for the transmit antenna paths are changed differentially.

109.-110. (Cancelled)

111. (Currently Amended) A transmitter being configured to transmit a digital signal to a receiver in a radio system, the transmitter comprising:
means for transmitting the signal via at least two different transmit antenna paths, the transmit antenna paths being connected to at least two different base stations;
means for weighting [[the]] transmit power of the signals to be transmitted via different transmit antenna paths with respect to one another using changeable weighting coefficients determined for each transmit antenna path;
means for receiving from the receiver weighting coefficient data formed based on measurements performed by the receiver on the received signals, and
means for forming the weighting coefficients using the received weighting coefficient data,
wherein the weighting coefficient data comprises differential information indicating how the ratios of the weighting coefficients for the transmit antenna paths are changed differentially.

112. (Currently Amended) A transmitter being configured to transmit a digital signal to a receiver in a radio system, the transmitter comprising:
a plurality of ~~transeeivers~~ transmitters configured to transmit the signal via at least two different transmit antenna paths, the transmit antenna paths being connected to at least two different base stations;
transmission power weighting controller configured to weight [[the]] transmit power of the signals to be transmitted via different transmit antenna paths with respect to one another using changeable weighting coefficients determined for each transmit antenna path;
at least one transceiver for receiving from the receiver weighting coefficient data formed based on measurements performed by the receiver on the received signals, and
a weighting coefficient formation component configured to form the weighting coefficients using the received weighting coefficient data,
wherein the weighting coefficient data comprises differential information indicating how the ratios of the weighting coefficients for the transmit antenna paths are changed differentially.